

NEWCASTLE UNIVERSITY



**School of Electrical, Electronic and
Computer Engineering**



MENG Stage IV Industrial Project Handbook

2006-2007 SESSION

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SCHOOL OF ELECTRICAL, ELECTRONIC AND COMPUTER ENGINEERING

INDUSTRIAL PROJECT HANDBOOK

YEAR, 2006-2007

SECTION 1

The Industrial Project

1.1 Aims

The Industrial Project is an integral and compulsory component of the MENG degree programme starting in Stage IV which aims to:

- provide students with the experience of seeking and securing a position within an appropriate industrial organisation
- encourage self appraisal and the ability to present themselves effectively to potential industrial hosts
- provide a period of practical experience which will benefit the student's academic study and longer term career
- provide the opportunity to recognise and record the development of work place skills
- facilitate personal development in a non-university setting.

1.2 Qualifying and Requirements

To qualify for the Industrial Project students should normally have passed Stage III of the MENG course. The MENG students participating in the scheme have gained the necessary skills and experiences needed for their Industrial Project from earlier parts of their course.

In Stage I students:

- are provided with a broad scientific foundation on which to build a knowledge and understanding of electrical, electronic and computer engineering
- are introduced to some of the issues relating to electrical, electronic and computer engineering and explore ways to analyse the underlying problems
- study primary electrical, electronic and computer engineering principles in modules
- have the opportunity to broaden their interests through taking optional modules from outside the School
- develop presentational skills by participating in group discussions and writing reports of laboratory and library exercises

In Stage II students are:

- presented with the core knowledge base for electrical, electronic and computer engineering

- encouraged to develop a critical approach to experimental/laboratory studies and to the information derived from these activities
- given practical experience of experimental methods including the design, execution and evaluation of experiments
- encouraged to develop and to apply transferable skills in computer literacy, communication, numeracy, time management and teamwork.

In Stage III students are:

- provided with in-depth experience of primary research and are enabled to develop research skills
- required to produce a dissertation the preparation of which teaches evaluation of evidence and effective written communication of complex ideas
- exposed to the strengths and weaknesses of evidence upon which current theories, policies and practices are based and encouraged to develop a critical approach to the analysis of dogma and the resolution of controversies.

1.3 Specific Objectives

The objectives of the Industrial Project are:

- to demonstrate an ability to analyse own skills and experience prior to making employment applications
- develop effective self presentation
 - On paper through CVs/applications forms and covering letters
 - In person at interview (or other selection processes)
- identify and develop an understanding of how one's role contributes to the organisation achieving its goals
- use interpersonal and communication skills to work co-operatively with others
- acquire, evaluate and interpret information in a work setting and use it to solve problems and make appropriate decisions in line with the organisation's aims
- manage oneself, one's time and one's work effectively
- demonstrate that responsibility has been taken for one's own development by setting goals and targets and reviewing progress
- identify and adhere to good (or best) practice in the Industrial Project environment

1.4 Learning Outcomes

The learning outcomes of the Industrial Project are:

The ability to:

- show interpersonal communication skills
- present project results to technical and non-technical management
- plan and organise a project using a minimum of resources
- solve problems under time pressure
- initiative new ideas for cost reduction

- engaging teamwork
- write industrial reports

1.5 Structure

The formal regulations for the degree programme can be found at the following web address

<http://www.ncl.ac.uk/eece/undergrad/handbooks.htm>
[as at 24th May 2006].

Students should be aware at the end of Stage III second semester that they will be spending the subsequent semester with an Industrial Project provider and should be making the necessary preparations as early as possible. To assist with this, the university provides instruction on how to prepare a CV, acquire relevant information about Industrial Project organisations, write letters of application and prepare yourself for interviews and other forms of selection. Details may be found by contacting the Careers Advisory Service:

2nd Floor, Armstrong Building
0191 222 7748
careers@ncl.ac.uk
www.careers.ncl.ac.uk

The student is responsible for identifying a suitable Industrial Project, preparing their applications and to meet application deadlines and attend interviews if requested. The school will help with an Industrial Project only in exceptional circumstances. The school's role is typically limited to verifying that arrangements are satisfactory. No guarantee can be given for a successful Industrial Project because of the uncertainties in finding an Industrial Project provider. Uncertainties may be a lack of capacity in a particular company, difficulty in matching student interests and company demands, project work not being suitable or the outcome of the interview is not satisfactory.

In case no industrial arrangement can be made the student will then undertake a project within the school. This however, is not a preferred option and should be seen only as last choice. It is therefore recommended that students begin collecting contact addresses from industry and become familiar with the application procedure early in Stage III. The school recommends at least a half year on preparation time. In case of an Industrial Project in the EU we recommend one year.

Upon completion of Stage III second semester and before entering Stage 4 second semester, all candidates will spend the equivalent of 10 weeks with an Industrial Project provider approved by the Degree Programme Director. Four weeks of that time can be outside of the October – December period. The Industrial Project shall involve work in electrical, electronic or computer engineering and may be within the UK or EU, but not outside the EU. The University provides free insurance cover to registered students on University authorized journeys when going abroad. Full details are available on the websites below:

www.ncl.ac.uk/internal/finance/insurance/ugradsummary.htm
www.ncl.ac.uk/clusters/

To work at the place of the industrial project provider the company must have more than five employees; otherwise the student must carry out the project within the University. As well as the Industrial Project, students must take either a lecture based module or an ECAD module in addition to the project work.

In general students that choose a local company also choose a lecture based module at the university. The student therefore works four days per week with the industrial company and one day at the university. The ECAD module may be taken by students remote from the university.

During their Industrial Project, students remain registered with the university and retain their personnel tutors. Students are encouraged to keep in touch with their tutors and other key teaching staff by e-mail or other means. When practicable, students are visited in their host organisation during the Industrial project time by the Degree Programme Director, the tutor or another member of teaching staff.

SECTION 2

Industrial Project Information

2.1 Introduction

The Industrial Project makes a very important contribution to both your academic and personal development during your degree programme. It is situated after the second semester in Stage III, so that you have extended your knowledge into areas specific for your degree programme and of relevance to your Industrial Project provider's business, and before Stage IV second semester, so that your approach to your second semester of Stage IV and studies can take advantage of the increased maturity, better time management and other personal skills and appreciation of your academic subject's application gained while in industry.

2.2 Assessment

The assessment of the Industrial Project will be very different from that of most other parts of your degree programme. You will be required to keep a learning log book that summarises your learning experiences and which encourage you to record your reflections based on this experience. You are required to reflect, at regular intervals, on the skills, both subject specific and personal, that you are developing during your Industrial Project. This will require that you identify-areas in which you perform well and also areas in which you perform less well. You will be able to set yourself targets for subsequent periods of the Industrial Project and assess to what extent you achieve those targets. Also, students should analyse their own strengths and those of others within the teams in which they work, reflect on the skills needed for effective management.

Students also have to prepare two confidential reports. Report 1 covers the technical content of the work and is the major report. Report 2 is an organisation review covering the firm and its place in the market. Both reports need to be handed into the school after your Industrial Project period has finished.

Report 1: *Industrial/Research Project.*

This report will be similar in style to the Stage III individual project dissertation and will contain information about the technical aspects of the work you have been doing. It is important that you include in this report a significant (20-40%) amount of review work, showing how your particular contribution fits into the appropriate technological field. The report should be a maximum of 30 pages in length. Your employers may need to be reassured that the information in the report will remain confidential (it will not be published or placed in a library) and that they may request a copy of your report from the School. Form 5 must be the first page of the report. It has to be signed by the Industrial Project partner and the student. A report without both signatures will be marked with 0.

Report 2: Organisational Review.

This shorter report (maximum 15 pages) will describe how your particular activities contribute to the overall aims of the organisation in which you are working. This will require you to understand the structure of the organisation, its products, competitors, short and long-term strategies. Again the report is confidential and available to the organisation. Form 5 must not be included.

These assessments will be formative, i.e. they are designed to help you assess your own achievements, and they will undoubtedly be supported by appraisals from your workplace supervisor. When put together with your degree awarded on academic merit you will have a clearly recognisable set of academic and workplace skills which should enhance your opportunities of obtaining a high quality appointment following graduation.

In the last week of your Industrial Project time you should finish your reports and it should be typed. Some project providers allow finishing the reports after the Industrial Project period. This needs to be discussed with the industrial partner. The report should be written for a reader with a similar (non-specialist) technical background to your own. All sources of information should be listed, and, where appropriate, referenced in the main text. Any word-for-word quotation from a published document should be enclosed in quotation marks and the source clearly stated. Similarly any diagrams or photographs which you have not prepared yourself should have a caption which states where the original diagram appears.

Reports must be handed in to the School Office on the first Friday of the second term. This is an absolute deadline and if your report is presented late you will be penalised.

The Industrial Research Project is marked using the following scheme:

Background/ review of technical area	15%
Technical Content	50%
Conclusion	10%
Presentation	25%

In view of the diversity of placement opportunities and the information acquired, there is no formal marking scheme for the Organisation Review, however, it should comprise, in general, the Company Profile that is:

- Company,
- Overview,
- Company Structure,
- Products and Services,
- Competitors,
- Company Strategy,
- Balance Sheets etc.

2.3 Roles and Responsibilities

During your Industrial Project you must remember that you are a pseudo employee of your project provider and are therefore expected to meet all the obligations of a normal employee of that organisation, such as attending project provider's induction programme, time keeping, meeting all health and safety requirements, holiday arrangements, etc. You must comply with any reasonable instructions given to you by your supervisor or other manager at your place of work. In addition you are acting as an ambassador for Newcastle University and, in particular, for your degree programme. The way in which you behave during your Industrial Project can influence your project provider's willingness to take subsequent project students. Please make sure that you create as good an impression as possible with your employer.

2.3.1 Before starting your Industrial Project

Prior to starting the Industrial Project, students are expected to participate in a one hour introduction. **The introduction will be held during the introduction week of semester 1 in stage III. You must attend this briefing with the Industrial Project co-ordinator prior to going on project work.**

You will be required to submit Form 1 giving details of your contact addresses during stage III and during the summer vacation period. Both addresses are needed to allow communication until you found an industrial partner. In addition your CV is also required. **The CV and signed Form 1 must be handed in to the School office on the last Thursday of the first term at 4.00pm latest. In addition the CV and three topics of your interests have to be sent to the Industrial Project co-ordinator by email on the last Thursday of the first term at 4.00pm latest. The CV should be a word document and the file should have the following name: "firstname-surname.doc".**

At the beginning of semester 2 in stage III you are required to give a monthly update to the Industrial Project co-ordinator. The information can be very brief about your progress in finding an industrial partner. The status should be send via email. If we do not receive an update we assume that you secured an industrial project.

If you secured a project with an industrial partner you are required to inform the Industrial Project co-ordinator as soon as possible. You will receive Form 2 which needs to be filled out and send back to the co-ordinator. In Form 2 you give details of the name and address of the company, the starting and end time of the project and a brief description of the project. Once the Industrial Project co-ordinator received Form 2 the industrial project provider will be contacted by the School. The industrial project provider is asked to sign Appendix A. **If, for any reason, the Industrial Project provider cannot meet the health and safety responsibilities then the Industrial Project may be withdrawn or further discussions take place.**

At the end of the semester 2 you will be invited for a Health and Safety session. You have to attend this session and your attendance will be recorded. The session provides you with general Health and Safety guidance. Expected handouts at this session are shown in Appendix B.

2.3.2 Contact with the School during your Industrial Project

Each student should contact the tutor at least three times during the 10 weeks Industrial Project. Contacts can be carried out by phone or email. A brief description of the project progress should be given by the student. In addition other matters may be discussed. **At the end of your second week in your project time you have to fill out Form 3. The signed form must be send to your tutor.**

If your Industrial Project is on the UK mainland, and possibly if it is elsewhere, in some circumstances you will receive a visit from a member of school staff. This will provide the opportunity for a member of staff to see you in your workplace and to discuss your progress with both yourself and your supervisor. Industrial supervisors will be asked to complete an assessment form during this visit and, at the end of the Industrial Project, to give their appraisal of your performance. A copy of this form, Appendix C, is at the back of this handbook for your information. For those students with overseas projects we will try to arrange a video conference between yourself, your supervisor and a member of school staff during which your progress can be discussed.

Most of you will have access to e-mail so you will be able to keep in contact with school staff, in addition to your Stage IV MENG tutor Dr. Gordon Russell, if necessary. While you are on your project you remain a Newcastle University student and your NuSmart card will remain active whilst you are on your project.

2.3.3 End of your Industrial Project

In your last week of your Industrial Project time you should finish both reports and it should be typed. Some project providers allow finishing the reports after the Industrial Project period. This needs to be discussed with the industrial partner. **Report 1 must have Form 4 as first page and signed by the Industrial Project partner and the student. A report without both signatures will lead to 0 marks for Report 1.**

Reports must be handed in to the School Office on the first Friday of the second term. This is an absolute deadline and if your report is presented late you will be penalised.

Once you finished your Industrial Project you are asked to visit your tutor so he/she knows that you are back. You should provide some feedback like information on the Health and Safety of the company or learning outcomes.

2.3.4 Structure of the Industrial Project and termination of the Industrial Project

The structure of the Industrial Project is shown in Appendix D in form of a flow chart. The flow chart summarizes all steps described in section 2.3.1 to 2.3.3. and includes all important deadlines. **Failures in missing deadlines and not keeping up with the presented tasks are seen as progression failure. In this case the School has the right to withdraw the student from doing the project with a company.**

2.3.5 In case of difficulties

Very occasionally some problem may arise during your Industrial Project. In the first instance you should try to solve the problem yourself by initiating discussions locally with the most appropriate person (probably your industrial supervisor). If you are unable to resolve the problem you should contact the Stage IV MENG tutor Dr. Gordon Russell, your personal tutor or your degree programme director. You should outline the problem, what you have already done to try to solve it and why that has not been successful. You will then be contacted by someone from the school who will, if necessary, make contact with your project provider on your behalf. Please remember, though, that you are effectively seen as an employee of your project provider and should not expect any special treatment. It is important that if real difficulties arise the school is told as soon as possible because it is always easier to sort out problems as they arise rather than months later.

2.3.4 Health and Safety

In the first days of the project, students are required to become familiar with the Health and Safety regulation of work environment. You are requested to approach your employer with this issue during the first days of the project. You should ensure that you:

- take part in a Health and Safety induction at the company and any subsequent briefing
- are aware of the action to be taken in case of an emergency
- have familiarised yourself with the layout of the building, the location of fire fighting appliances and how they work, position of emergency exits, position of telephones and first aid arrangements
- have knowledge of any specific health and safety requirements if you are required to work off-site or out of normal working hours
- report any accidents or incidents in accordance with Industrial Project provider's requirements

Appendix B provides a Health and Safety Guidance note. Please read Appendix B very carefully so you understand it.

Beside typical Health and Safety issues as described in Appendix B you need to be aware that the following aspects have also potential health and safety implications:

- Religious aspects
- Sexual harassment
- Racism
- Cultural difficulties

2.3.5 Personal liability and insurance responsibilities

For the majority of Industrial Projects you will be covered by your Industrial Project provider's insurance. Alternatively, you will, if necessary, be covered by the University's insurance. Further details can be obtained from the Industrial Project co-ordinator Dr. V Pickert who will provide the necessary forms which the employer will need to complete.

2.3.6 Fees

During the 10 weeks, students continue to be registered students of the university and continue to be regarded as university students by their local education authorities. Therefore, they continue to be liable for a contribution to university fees. There is no reduction of the normal rate.

2.3.7 Payment

Students should not expect payments from the industrial partner. It is entirely up to the discretion of the participating company if a wage is paid. Companies that have in the past participated with the Industrial Project have paid students on various levels: fixed wages which are not negotiable; flexible wages measured on student's experiences; no payment but reimbursement of travelling expenses and accommodation expenses; no reimbursement or payment at all. Students are advised to choose their choice of industrial partner on the company profile and the project that will help to build up the student's career, rather than focusing on payment they may receive. In no circumstances is the School involved in any payment arrangements or payment negotiations.

Students that are receiving money from the Local Education Authority (LEA) are not allowed to receive any payment at all from the industrial project provider.

2.3.7 Overview of responsibilities

2.3.7.1 Responsibilities of the School of Electrical, Electronic and Computer Engineering:

The School will:

- identify suitable Project opportunities, advertise these to students;
- monitor Projects as necessary, which may involve occasional on-site visits. Regular contact with students and industrial supervisors other than as identified above is not usual unless a problem arises;
- mediate between employer and student in the unlikely event of any misunderstanding or difficulty concerning the Project;
- be responsible for the formal assessment of the Project;
- exercise confidentiality, both reports remain confidential to the academic staff of the School (for assessment purposes) and to the company. The reports are not placed in a library or any other open-access location.

2.3.7.2 Responsibilities of the Project Provider:

- A Project should ensure that a student is exposed to real problems and is encouraged to develop intellectual and judgemental skills.
- The student should be encouraged to develop a mature capacity to work with people at all levels with all skills and readily to accept responsibility.
- The student should be a valued member of the team and make a real contribution to the company.

- Students expect to be assigned a number of tasks of a demanding nature which they should pursue under supervision and they will anticipate exposure to many relevant aspects of the industry.
- Although day-to-day repetitive tasks are recognised as a necessary part of work, they should not comprise a major proportion of the activities undertaken on the Project.
- Where appropriate professional training and work-based learning opportunities should be provided to give opportunities for personal development.
- Health and safety regulations and responsibilities must be made clear to the student and applied in all working environments.

2.3.7.3 Responsibilities of the Student:

The student will:

- endeavour to derive maximum academic and personal benefit from the opportunities offered by the project provider/university;
- endeavour to develop inter-personal, teamworking and other relevant skills;
- take advantage of all work-based learning opportunities presented during an Industrial Project;
- take every opportunity to develop an appreciation of industrial and business procedures and practices;
- be clear regarding work objectives and targets set by the Project provider;
- be responsible to the employer for matters related to performance, time-keeping, discipline and illness;
- strictly observe Health and Safety regulations;
- inform the School of Electrical, Electronic and Computer Engineering if the agreed Project arrangements are substantially altered by the project provider;
- pursue the allocated tasks diligently and to the best of their ability;
- update the co-ordinator with contact details for themselves during their Project;
- if difficulties arise first seek advice from the industrial supervisor assigned to them by the company and then inform the School of Electrical, Electronic and Computer Engineering.

2.3.8 Fairness

It is particular feature of this arrangement that students are not competing with each other for a vacancy. If both the student and the company are satisfied then the arrangement is finalised. Either party can declare themselves dissatisfied, but this is very rare.

2.4 Contact Addresses

Prof Bayan Sharif

Head of School

e-mail: Bayan.Sharif@ncl.ac.uk

Dr Graeme Chester

Degree Program Director

e-mail: Graeme.Chester@ncl.ac.uk

Dr Gordon Russell

Stage IV MENG Tutor

e-mail: G.Russell@ncl.ac.uk

Dr Volker Pickert

Industrial Project Co-ordinator

e-mail: Volker.Pickert@ncl.ac.uk

Dr Nick Coleman

Industrial Project for EU countries

e-mail: J.N.Coleman@ncl.ac.uk

Mr. David Branch

School Health and Safety Manager

e-mail: D.P.Branch@ncl.ac.uk

School Office

Secretaries: School Reception

E-mail: Eece.tempid@newcastle.ac.uk

Website: <http://www.ncl.ac.uk/eece>

School Address:

School of Electrical, Electronic and Computer Engineering
Faculty of Science, Agriculture and Engineering
Merz Court
University of Newcastle upon Tyne
Newcastle upon Tyne
NE1 7RU

Telephone: 0191 222 7340

Fax: 0191 222 8180

Professor Sharif's personal secretary

Mrs Helen Barber

Tel: 0191 222 7267

e-mail: Helen.Barber@ncl.ac.uk

UNIVERSITY OF NEWCASTLE UPON TYNE
School of Electrical, Electronic and Computer Engineering

Declaration of Understanding the Industrial Project Procedure

Contact address during Stage III:

Name:.....

Address:.....

.....

Telephone:.....

Mobile:.....

Email:.....

Available at above address until:.....

Contact address after Stage III exam period and begin of the Industrial Project:

Name:.....

Address:.....

.....

Telephone:.....

Mobile:.....

Email:.....

- I read the Industrial Project Handbook and understand the contents Yes/No
- I understand my commitments to the University and my project provider Yes/No
- during the Industrial Project
- I will read and agree to abide by the company's Health and Safety policy Yes/No
- I agree to the submission of two reports to the University at the end of the Yes/No
- Industrial Project
- I understand that the School has the right to withdraw me from doing a Yes/No
- project within a company based on failing to keep up with the Industrial
- Project procedure
- I agree that my behaviour should be keeping with a representative of the Yes/No
- University

please circle

Signed: Name: Date:

UNIVERSITY OF NEWCASTLE UPON TYNE
School of Electrical, Electronic and Computer Engineering

Flash Card

Student:

Name of student:.....

Contact address of industrial partner:

Name of company:.....

Name of industrial supervisor:.....

Address:.....

.....

.....

Telephone:.....

Email:.....

Project description:

.....

.....

.....

.....

Starting date of the Industrial Project :

Projected completion date:.....

UNIVERSITY OF NEWCASTLE UPON TYNE

School of Electrical, Electronic and Computer Engineering

Industrial Project Feedback

The purpose of this report is to make sure that we have all of your details up to date during your Industrial Project period and to ensure that the initial requirements of the Industrial Project are satisfactory and to identify at the earliest opportunity any problems that you may have. Please complete the form and return it to your tutor as soon as possible. If any of your details change, particularly your accommodation address, please inform us immediately.

Your name:

A. Work related matters

1.

Industrial Project organisation name	
Address	
Telephone	
Fax	
Email address [if available]	

2. Title or description of your job:

3. Have you been assigned a particular project? Yes / No

If Yes, please give a brief summary of the work in which you will be involved

4. Has the host organisation identified a member of staff (supervisor) to whom you are responsible? Yes / No

If yes, please give details of your supervisor

Name	
Designation (job title)	
Telephone number	
Email address	

5. Have the aims and objectives of the Industrial Project been clearly outlined? Yes / No
6. Has your role in your workgroup been identified? Yes / No
7. Has your role in the organisation been identified? Yes / No
8. Have specific targets and deadlines been set for you? Yes / No
9. Do you see a link between your present work and your studies at University? Yes / No

Comment:

10. Do you see a link between this work and the kind of work you would like to be involved with in the future? Yes / No

Comment:

11. How much contact do you have with your supervisor? (choose one of the following or give details)

Daily Weekly Monthly
 Once at start of Industrial Project Not yet made contact

Comments:

12. Will you be required to work shift work? Yes / No
13. Are transport arrangements satisfactory if you need to work late? Yes / No

B. Workplace induction

1. Please indicate which of the following have been dealt with during your induction to the company.

- Have you attended a Health and Safety meeting? Yes / No
- Do you know the emergency procedures? Yes / No
- Have you received a safety policy? Yes / No
- Do you know the location of the safety policy? Yes / No
- Do you know the location of the First Aid box? Yes / No
- Do you know First Aid arrangements including the names of first aiders? Yes / No
- Do you know the fire procedures and locations of fire extinguishers? Yes / No
- Do you know the procedure for accident reporting and the location of the accident book? Yes / No
- Does COSHH (Control of Substances Hazardous to Health Regulations) apply at your place? Yes / No
 - If answer is yes, are you aware of COSHH regulations and requirements? Yes / No
- Did you receive instructions of equipment that you are using? Yes / No
- Have you had a computer workstation or Display Screen Equipment (DSE) assessment? Yes / No
- Have you had a manual handling assessment (e.g. lifting, carrying and pushing of heavy items)? Yes / No
- Have you been introduced to key staff members and their roles? Yes / No
- Has the number of working hours been discussed? Yes / No
- Has the place of work been shown to you? Yes / No

It is your responsibility to clarify with your employer any points listed above concerning your workplace induction that are relevant to your Industrial Project but about which you have not received any information. This is not a definitive list. If you believe there are other Health & Safety issues you should raise these with your project provider and inform the School Health and safety officer.

2. Insurance

(a) Have you asked your supervisor whether or not you are covered by the company insurance while working on your Industrial Project?

Yes / No

(b) Are you covered by your company's insurance?

Yes / No

If the answer is no, please contact the Industrial Project co-ordinator Dr. Volker Pickert immediately.

C. *Personal matters*

1. Please provide your accommodation address:

Telephone:

2. Which address would you like us to use if we need to write to you during your Industrial Project period?

Work / Accommodation

3. Do you have or anticipate any specific problems with which you would like our help?

Yes / No

Comments:

Signature student

Date

If there are any confidential matters which you would like to discuss with your tutor, please do not hesitate to contact him or her. If you prefer to speak with the Industrial Project co-ordinator, Stage IV tutor or Degree Programme Director then please do so.

Stage IV Tutor

Dr Gordon Russell 0191 222 7324 G.Russell@ncl.ac.uk

Degree Program Director

Dr. Graeme Chester 0191 222 7325 Graeme.Chester@ncl.ac.uk

Industrial Project co-ordinator

Dr Volker Pickert 0191 222 6684 Volker.Pickert@ncl.ac.uk
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School Health and Safety Officer

Mr. David Branch 0191 222 7334 d.p.branch@ncl.ac.uk

The School addresses are: School of Electrical, Electronic and Computer Engineering
Merz Court
University of Newcastle upon Tyne
Newcastle upon Tyne NE1 7RU

The School office telephone number is 0191 222 7340

Declaration Industrial Report

Company address:

Name of Student:

Name of Industrial Supervisor:

I herby agree that the aforementioned student finished his/her Industrial Project. The project activities are described in the Industrial Project Report. I read the Industrial Project Report and have allowed the student to forward a copy to the School of Electrical, Electronic and Computer Engineering of the University of Newcastle upon Tyne.

Signature Industrial Supervisor

Date

I herby declare that I wrote the Industrial Project Report. The report has been seen by the aforementioned organisation. No changes, additional information or attachments have been added since this declaration was signed by the aforementioned organisation.

Signature Student

Date

Appendix A

Health and Safety checklist for companies/organisations providing student projects

Name of organisation:
Please give a short description of the type of work experience the student will be undertaking.
The aforementioned organisation has a written Health and Safety Policy that covers the students on his/her Industrial Project period.
The aforementioned organisation is registered with the Health and Safety Executive or the Local Authority Environmental Health Department.
The student will receive induction and other safety related training necessary to undertake the project safely.
The student will be adequately supervised during the project period.
Risk assessments are available that covering the work the student will be undertaking.
Arrangements are in place in the event of an emergency. (The University needs to be informed of all accidents involving students).
There is a formal procedure for reporting and recording accidents and incidents.
The aforementioned organisation has Employers' and Public Liability insurance.

The above statements are true to the best of my knowledge.

Signed:
(Director or nominate signatory)

Date:

Name:

Position:

Please return this completed form to:

School of Electrical, Electronic and Computer Engineering
University of Newcastle-upon-Tyne,
Dr. Volker Pickert
Merz Court,
Newcastle-upon-Tyne,
NE1 7RU,
UK

Appendix B

Health and Safety Guidance Notes for Students going on an Industrial Project

Introduction

Industrial Projects provide an opportunity for you to apply skills acquired whilst at your institution to 'real-life' situations. Many qualities can also be learned and developed during an Industrial Project that could improve your employment prospects. However, there are health and safety aspects to every Industrial Project, namely: -

- ◆ being under the supervision of an external provider;
- ◆ being involved with, or undertaking, activities where you have little or no experience; and
- ◆ working in and visiting environments and locations that you are unfamiliar with.

This guidance provides you with an awareness of the health and safety aspects of Industrial Projects.

Health and Safety Responsibilities

Industrial Project Providers – organisations providing Industrial Projects

- ◆ A general duty to ensure your health and safety whilst on Industrial Project.
- ◆ Take account of your potential inexperience for activities you'll be expected to undertake and put into place appropriate controls.
- ◆ Provide you with information, instruction, training and supervision.

Students

- ◆ Not to do anything that puts your or other people's health and safety at risk.
- ◆ Follow health and safety instructions, information and training.
- ◆ Never intentionally misuse anything provided for health and safety reasons.
- ◆ Bring any health and safety concerns to the attention of your Industrial Project provider and your Industrial Project tutor at the university.

Industrial Project Preparation

There are many aspects to Industrial Projects that you have to prepare for, health and safety included. It is important that you: -

- ◆ attend briefings prior to Industrial Projects commencing as health and safety will be covered; and
- ◆ familiarise yourself with the health and safety aspects of Industrial Projects, particularly you and your Industrial Project provider's responsibilities, and what you should receive, particularly in the initial period.

Information, Instruction, Training and Supervision

These form the 'backbone' of ensuring your health and safety whilst on Industrial Project and can include: classroom-type situations; health and safety notices and signs; safe working procedures

As soon as possible after commencing an Industrial Project you must receive a health and safety induction. If you do not receive an induction then raise this with your Industrial Project provider.

As your Industrial Project progresses so will the information, instruction and training you receive. Never undertake an activity or go into an area unless you have received appropriate information, instruction and training for you to feel competent and confident to carry on.

Levels of supervision will vary from Industrial Project -to-Industrial Project and at points within a particular Industrial Project. Don't be afraid to ask questions of your supervisor and if you feel there is a lack of supervision then raise this concern.

Emergency Information

Whilst on Industrial Project it is essential that you receive information and instruction on what action to take should an emergency situation arise. Such situations include: -

- ◆ hearing the fire alarm;
- ◆ discovering a fire;
- ◆ requiring first aid assistance;
- ◆ threat to personal safety; and
- ◆ spillage of a dangerous substance.

If you are not made aware of what correct actions to take raise this with your Industrial Project provider. Such information must be given at the induction stage and where a change of work location or activity occurs.

Assessing and Controlling Risks

Your Industrial Project provider is expected to assess the risks encountered with the activities you'll be involved with and put into place measures to control these risks. Such measures may be no different to those already in place for any of their employees. However, because of your potential inexperience, or other factors, a higher level of measure may be required, especially in the early periods of the Industrial Project.

Measures to control risks can include: -

- ◆ providing information, instruction, training and supervision;
- ◆ having in place guarding, ventilation systems etc. to control risks at source;
- ◆ ensuring equipment used is appropriate and in safe condition; and
- ◆ providing, and ensuring the use of, personal protective equipment and clothing.

It is important that you are made aware of the risks associated with the activities you will be involved with and what is in place and required of you to control these.

Personal Protective Equipment (PPE)

An element of controlling risks may be the use or wearing of PPE. PPE encompasses goggles, hard hats, ear defenders, face masks, overalls, gloves, waterproof clothing etc.

If you are issued with PPE it is important you are made aware of: -

- ◆ the reason it's required;
- ◆ how to ensure a proper fit so it will work effectively;
- ◆ how to maintain, store, recognise defects and action to take,

If you believe an item of PPE is defective do not continue to use it.

Reporting Incidents and Health and Safety Concerns

It is important that your report incidents – whether injury has resulted or not – that you are involved in. This will enable your Industrial Project provider to investigate the circumstances and take any necessary action. Reporting a 'near miss' incident could ensure that nobody is injured next time. At induction you must be made aware of the reporting procedures.

If you do have any health and safety concerns during your Industrial Project the first action is to raise these with your Industrial Project provider. Where you believe these concerns are serious also make your Industrial Project tutor aware. Don't wait to the next scheduled visit or conversation. Never undertake an activity, using equipment or go into an area unless you are competent and confident to do so.

Monitoring and Feedback

You are an essential element in the monitoring of health and safety performance of your Industrial Project provider. Ensure you discuss health and safety aspects with your Industrial Project tutor and complete any necessary paperwork that is required of you.

At the end of your Industrial Project give thoughts on how you feel the Industrial Project provider approached health and safety.

The information is very useful to the university as a means of reviewing the health and safety performance of the Industrial Project provider.

(The following information is to be included where this guidance is being given to those students who are undertaking EU Industrial Projects)

EU Industrial Projects

Whilst types of work and activities undertaken during EU Industrial Projects may vary from country-to-country there are also other aspects that can have potential health and safety implications. These include: -

- ◆ different climatic conditions (higher temperatures, more extreme winters);
- ◆ cultural and language differences (accepted practices, local laws and religions, communication more difficult);
- ◆ unfamiliarity with, and little knowledge of, Industrial Project locations and surrounding areas (personal safety, no-go areas, areas of high crime, safe use of transport);
- ◆ long-haul travel (jet-lag, difference in local hours, affect on body – initially more fatigued); and
- ◆ contracting illnesses, receiving injuries and obtaining medical treatment (venomous animals, contagious diseases, vaccinations, contaminated drinking water, local health care arrangements, contacting emergency services).
- ◆ Travel arrangements
- ◆ Health risks due to vaccinations
- ◆ Emergency plans
- ◆ Contacts back at the UK

These will also affect you during your own time whilst on Industrial Project.

It is important that prior to undertaking any EU Industrial Project you discuss the necessary arrangements that need to be in place and what you require to do in preparation.

Appendix C
**INDUSTRIAL SUPERVISOR'S REPORT ON THE PROGRESS
OF INDUSTRIAL PROJECT STUDENTS**

Name of Company:

Name of Industrial Supervisor:.....

Name of Student:

Please could you give a brief overview of the student's activities

.....
.....
.....

Has the student's background knowledge been sufficient for the work undertaken? YES/NO

If not please specify the areas in which the student has been deficient

.....
.....

Has the student been punctual? YES/NO

Has the student been conscientious? YES/NO

Has the student displayed initiative? YES/NO

Has the student fitted into the working environment? YES/NO

Has the student done any literature searches, reports and/or presentations? YES/NO

For laboratory based Industrial Projects only

How would you rate the student's experimental technique

GOOD / AVERAGE / POOR

Overall, how would you rate the student's performance compared to other Industrial Project Students you have worked with?

VERY GOOD / GOOD / AVERAGE / BELOW AVERAGE / POOR

Please add any comments that you would like to make concerning the student.

.....
.....
.....

Appendix D

Flow Chart: Structure Industrial Project including Deadlines



